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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

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In re application of

Rudolf Heinz et al

Based on PCT/DE 00/00511

For: Piezoelectric Actuator

PRELIMINARY AMENDMENT

Assistant Commissioner for Patents
Washington, D.C. 20231

Sir:

Prior to examination, please amend the above-identified application as follows:

Page 1, between the title and first line of the specification, insert the following:

--Cross-References to Related Applications

This is a 35 USC 371 application of PCT/DE 00/00511 filed on February 24, 2000.--

line 2, delete "Prior Art" and insert ~~Background of the Invention--;~~

between lines 2 and 3, insert ~~Field of the Invention--;~~

~~line 3, delete "The" and insert --This-- and delete "actuator, in" and insert --actuators, and more--;~~

~~line 4, delete "particular for actuating" and insert --particularly to such actuators for--;~~

~~line 5, before "having" insert --and--;~~

between lines 13 and 14, insert --Description of the Prior Art--.

Page 2, line 10, delete "Objects and Advantages" and insert --Summary--;

line 12, after "actuator" delete comma.

Page 3, delete line 1;

line 2, before "object" insert --above--;

line 10, delete "according to" and insert --of--;

line 21, delete "hardly" and insert --little--.

Page 4, between lines 2 and 3, insert --Brief Description of the Drawings--;

line 4, after "below," insert --taken--;

delete line 5;

line 6, delete "invention" and after "drawings" delete period and insert --, in which:--;

line 7, delete "Drawings.".

Page 5, line 1, delete "Exemplary Embodiments" and insert --Description of the Preferred Embodiments--;

line 8, delete "bore" and insert --body--.

Page 7, line 7, delete "according to" and insert --of--;

line 10, delete "circumference" and insert --circumferential--;

line 12, delete "circumference" and insert --circumferential--;

line 15, after "180°" delete "C";

line 16, delete "on" and insert --around-- and delete "circumference" and insert --circumferential--;

line 18, delete "circumference" and insert --circumferential--.

Page 10, after line 6, insert the following paragraph:

a⁷ --The foregoing relates to preferred exemplary embodiments of the invention, it being understood that other variants and embodiments thereof are possible within the spirit and scope of the invention, the latter being defined by the appended claims.--.

IN THE CLAIMS

a⁸ Page 11, line 1, delete "Claims" and insert "We Claim--".

Please cancel claims 1-10 and add new claims 11-31.

a⁹ 11. In a piezoelectric actuator of the type used for actuating control valves or injection valves of internal combustion engines in motor vehicles, the actuator having a circular, cylindrical piezoelectric actuator body (1) in the form of a multilayered laminate made up of stacked layers of piezoelectric material with intervening metallic or electrically conductive, alternating first and second electrode layers (10, 11) that function as electrodes, wherein these first and second electrode layers (10, 11) alternately contact a first and second electrically conductive common electrode connection (12, 13), the improvement wherein the actuator body (1) has an internal longitudinal bore (2) and at least the first common electrode connection (12) is provided on the inner wall (3) of the actuator body (1) constituted by the internal longitudinal bore (2) and contacts every first electrode layer (10) there.

12. The piezoelectric actuator according to claim 11, wherein the second common electrode connection (13) is provided on the outer wall (4) of the actuator body (1) and contacts every second electrode layer (11) there.